

REMARKS

By the above action, claims 1 has been further amended. In view of the action taken and the following remarks, further consideration of this application is now requested.

Before proceeding further, it is noted that an inconsistency exists in the Examiner's Action in that the Office Action Summary indicates that the Examiner's Office Action is a non-final one, while the Action is indicated to be a final one at the top of page 6 of the Action. However, since this Action could not have been properly made final due to the fact that the Amendment entered on filing of the RCE had been denied entry as raising new issues, it is assumed that the Office Action Summary is correct and the statement on page 6 was a mistake.

The Examiner's comment that the priority document filed was not a "certified" copy of the German application is simply not correct. Attached is a photo copy of the certified copy filed from which it can be seen that it was a ribboned and sealed copy bearing the signature of the president of the German Patent and Trademark Office attesting to the fact that it is a true and correct copy of the application on file. It appears that when the Office disassembled the priority document to scan it into the electronic file, the cover page with the certification was not copied. Since the copy filed was a certified copy, it is suggested that the Examiner contact those responsible for maintaining the original documents and arrange for the certification page to be scanned into the official electronic file and if the original certification page is no longer available, then the Office should use the attached copy of the missing page for purposes of completing the official record. Accordingly, acknowledgement of compliance with the requirements of 35 USC § 119 is requested.

All of the claims were rejected under 35 U.S.C. § 103 as being obvious over the combined teachings of the International application of Köhne in view of the German application of Evers; as indicated in the above amendment to the specification, International application of Köhne has resulted in U.S. Patent No. 6,793,693. In maintaining this rejection, the Examiner has ignored the language added to the end of claim 1. To the extent that this rejection relates to the claims as now presented, it should be withdrawn for the following reasons.

Firstly, it is pointed out that the Examiner's failure to give weight to the entirety of the last clause of claim 1 is contrary to both case law and Office policy as reflected in MPEP

§ 2173.05(g) wherein it is pointed out that a “functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used” and the case of *In re Luck*, 476 F.2d 650, 177 USPQ 523 at 525 (CCPA 1973) in which it was stated that:

... it is well established that product claims may include process steps to wholly or partially define the claimed product [citations omitted] To the extent that these process limitations distinguish the *product* over the prior art, they must be given the same consideration as traditional product characteristics. [Emphasis in original.]

The sections and cases cited by the Examiner on page 6 of his Action have no relevance to expressions of the type presented in applicant's claims nor do stand for the broad proposition stated by the Examiner that “process limitations do not have patentable weight in an apparatus claim.”

Moreover, inasmuch as claim 1 now recites the fact that the “fuel heating means is ... a means for preheating the fuel to a temperature producing spontaneous fuel vaporization at a nozzle outlet of said nozzle,” it is incumbent upon the Examiner to demonstrate that prior art combination of references would render obvious a fuel heating means which is constructed to preheat the fuel to a temperature that would produce the recited result.

As is pointed out in paragraph [0009] of the present application, and now clearly reflected in amended claim 1, with the invention, improved atomization of the fuel takes place with an additional atomization effect occurring by spontaneous fuel vaporization at the nozzle outlet because the fuel already has been heated to a high temperature due to preheating..

In contrast, as noted in applicant's preceding response, in all of the embodiments described in the Köhne et al. patent, the preheating that is performed is of the oxidized fuel-air mixture. This is in direct contrast to the present invention which heats the fuel prior to formation of the oxidized fuel-air mixture in a “the mixture formation area,” not a combustion chamber. While there is a nominal statement to the effect that “[a]nother form of heat introduction by fuel preheating is possible” (column 8, last sentence of the U.S. Köhne et al. patent), there is no description whatsoever as to where or how or to what extent this

preheating should take place and their detailed teachings concerning heating of the fuel-air mixture would have no direct applicability to implementation of their merely nominally mentioned possible fuel preheating. However, the present invention goes beyond merely preheating of the fuel and involves the particular location of a preheating means that is able to achieve "spontaneous fuel vaporization at a nozzle outlet of said nozzle" which is in the mixture formation area.

As for the Evers et al. reference, it is again submitted that it has no direct relevance to either the present invention or the Köhne et al. patent. Evers et al. relates to a vehicle heater with a burner, fuel being delivered to the combustion area by pressure pulse injection. In responding to applicant's arguments as to the reasons why one of ordinary skill in the art would not look to vehicle heaters for a suggestion as to how fuel should be delivered, not to a combustion chamber, but to a mixture formation chamber of a fuel cell apparatus, the Examiner has merely made the nonresponsive and illogical reply that both Evers et al. and Köhne et al. are providing a fuel feed to a combustion engine. That is, his comment merely reinforces applicant's point that these references do not deal with the problem of mixture formation as opposed to fuel combustion since and what is suitable for a combustion chamber supply is not necessarily suitable for mixture formation in a mixture formation chamber, where one would logically expect a uniform fuel supply to be necessary to achieving of a homogeneous fuel mixture. In Evers et al., a pulsed supply works because the fuel is being supplied to a flame zone at intervals sufficient to prevent the flame from extinguishing, but such has little relevance to mixture formation in the Köhne et al. patent, and the pressure pulse injection works in the present invention because the fuel is heated to a temperature/vapor pressure that achieves "spontaneous fuel vaporization" as the fuel exits the nozzle, something not taught by either the Köhne et al. patent or the Evers et al. reference. The Examiner simply has not met his burden of demonstrate the obviousness of applying the combustion concept of the Evers et al. heater to the fuel mixture formation aspect of the reformer device of the Köhne et al. patent.

Thus, in view of the foregoing, it should now be apparent that the present invention is both novel and nonobvious relative to the prior art applied by the Examiner no matter how these two references might be viewed in combination with one another. That is, there is simply nothing in the applied references that would make it obvious to provide the device of

the Köhne et al. patent with a preheater that is operable as a "means for preheating the fuel to a temperature producing spontaneous fuel vaporization at a nozzle outlet "located in a mixture formation chamber for a reformer of a fuel cell apparatus. As such, the outstanding rejection under § 103 should be withdrawn and such action is hereby requested.

While this application should now be in condition for allowance, in the event that any issues should remain after consideration of this response which could be addressed through discussions with the undersigned, then the Examiner is requested to contact the undersigned by telephone for that purpose.

Respectfully submitted,

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BUNDESREPUBLIK DEUTSCHLAND



HP 6000

Prioritätsbescheinigung über die Einreichung einer Patentanmeldung

Aktenzeichen:

102 50 882.8

Anmeldetag:

31. Oktober 2002

Anmelder/Inhaber:

Webasto AG,
82131 Gauting/DE

Erstanmelder: Webasto Thermosysteme GmbH,
17033 Neubrandenburg/DE

Bezeichnung:

Gemischbildungseinrichtung für einen Reformer
eines Brennstoffzellensystems oder für ein
Heizgerät

IPC:

H 01 M, C 01 B, B 01 F

**Die angehefteten Stücke sind eine richtige und genaue Wiedergabe der ur-
sprünglichen Unterlagen dieser Patentanmeldung.**

München, den 25. August 2005
Deutsches Patent- und Markenamt
Der Präsident
Im Auftrag

Welle
Wolfgang

A 9161
08/00
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